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Coronary Spasm and Inbreeding: About One Case

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Case Report

We describe the case of a 24 year-old man, admitted to our CCU (coronary care unit) for a NSTEMI. His past medical history included inbreeding (his grandfather was his father), a sudden death in his sister aged one month (also inbred) and an

ischemic stroke secondary to left internal carotid stenosis and then the right internal carotid that required right temporo-sylvian bypass.

During hospitalisation, a STEMI occurred. Coronarography showed a critical stenosis of the left main coronary artery, which didn't respond to intra-coronary injection of isosorbide nitrates.

Optical coherence tomography (OCT) confirmed the critical stenosis of the main left coronary artery, with no dissection, neither hematoma, neither plaque rupture, but an abnormal thickening of the media and intima and abnormal visibility of internal and external elastic lamina. A Drug eluting stent was placed in the main left coronary artery, and restored a TIMI 3 flow. Unfortunately, he died four months later, secondary to a ventricular arrhythmia due to STEMI. The autopsy revealed sub-intimal fibrosis and abnormal elastic fibers in the media which can evoke an Ehler-Danlos syndrome with normal arterial walls. To our knowledge, this is the first case of a coronary spasm due to inbreeding described in literature and it's the first time that we show a correlation between OCT and histology (**Figure 1**).

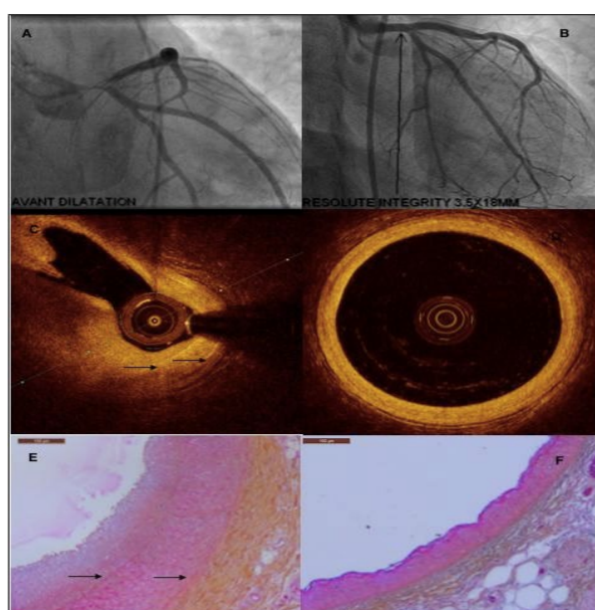


Figure 1 A- Coronarography: Critical stenosis of the left main coronary artery before dilatation.
 B- Coronarography: Left main after stent implantation.
 C- Abnormal thickening of the media at intima of the left main coronary artery and abnormal visualization of the internal and external elastic lamina (pointed by arrows) in OCT.
 D- Normal left main coronary artery seen in OCT (Optical coherence Tomography).
 E- Histological section of the main left artery coronary: abnormal thickening of the media and intima. Corresponding to the OCT findings (pointed by arrows).
 F- Histological section of a normal left main coronary artery.